



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,982	04/23/2007	Mogens Mathiesen	43315-232647	8441
26694	7590	04/13/2009	EXAMINER	
VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998		TRUONG, DENNIS		
		ART UNIT		PAPER NUMBER
		2169		
		MAIL DATE		DELIVERY MODE
		04/13/2009		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/583,982	MATHIESEN ET AL.
	Examiner	Art Unit
	DENNIS TRUONG	2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 February 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-23 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-23 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 22 June 2006 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/02/2009 has been entered.

Response to Amendment

2. It is acknowledged that claims 1-3, 13, 15, and 19 have been amended, and 21, 22 have been added.
3. Claims 1-13, 15-22 are pending.

Response to Arguments

4. Applicant's arguments with respect to amended claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Regarding claim 13, the phrase "which when run" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 13 refers to a “computer code means and/or software code portions recorded on the computer readable medium which when run on a computer processor will make said computer or processor perform the step of” the claim language “which when run” refers to the software portion of the claim and is unclear as to whether the code is being ran or not, and therefore when the claims are not being ran by the computer processor the code is at most software *per se* therefore remains rejected under 35 USC 101.

Accordingly the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, do not make

it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

7. As per Claims 15-18 the claims recite “computer readable medium” and in view of the specification, page 16 lines 5-7 further defining the medium as "magnetic disk, CD-ROM, or DVD, Hard disk..." This indicates that the medium is drawn to storage medium and not to any form of energy, waves, or any form of propagation or the like, therefore complies with 35 USC 101.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 8, 13,15-17, 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vines et al. (US 6006171)** as in view of **Ying (US 20020181405 A1)**.

As per Claim 1, Vines discloses:

- A method to carry out at least one of retrieving or accessing information about an equipment, plant or process in a facility comprising a plurality of devices and one or more control systems for process monitoring and control, wherein energy-related information and other data for each said device is stored in a one of said control**

system systems, at least by (Abstract) where it is known in the art that parameters for monitoring equipment incorporates “energy-related information”.

- **selecting using a portable computing device one of said equipment, plant or process**, at least by (col. 4 lines 9-11) “selection of process control monitoring station, association of equipment tag names in the maintenance database with process control variables” where the selection of the monitoring station is in association with the selection of which equipment will be monitored.
- **configuring a software entity recorded on a computer readable medium with an identity of the selected said equipment, plant or process, the software entity comprising links to information regarding all equipment, plant, process monitored and controlled by the control systems**, at least by (col. 4 lines 21-32) where DMM is the software claimed, Ref. 450b is the identity of the equipment, Ref. 450a is the information pertaining to the equipment that can be monitored.
- **retrieving information associated with said selected equipment, plant or process with the configured software entity, the information comprising maintenance information, technical information, and contact information for people knowledgeable about the selected equipment, plant or process**, at least by (col. 5 lines 51-60) where the work order is the maintenance information, and (col. 6 lines 1-6) crew assigned to do the work is the people knowledgeable about selected equipment otherwise they would not be assigned.
- **presenting or displaying on said portable computing device at least information about a new event or an alarm for said selected device and/or the location of said**

equipment, plant or process to a user and utilizing the information to address the new event or alarm, at least by (col. 5 lines 41-48) show an automatic work order being generated due to an alarm, (col. 5 lines 61-67) shows a work order being generated when a problem arises which should be understood as when an alert or alarm is detected, and the generation of the work order is the action of addressing the new event or alarm.

But **Vines** fails to specifically teach selecting and displaying using: **portable computing device.**

However, **Ying** teaches the above limitations at least by (paragraph 0074, Fig. 15, 19-21, 24-25) “computerized diagnostic device 194, such as a personal digital assistant (PDA) or similar device which is programmed to provide testing and diagnostic functionality, and a wireless intermediary device 196...perform at least all of the test and diagnosis operations that could be performed by connecting a test computer to the control network 199, but without being restricted as to mobility” where the PDA is the portable computing device.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Ying** into the teaching of **Vines** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of performing at least all of the test and diagnosis operations that could be performed by connecting a test computer to the control network, but without being restricted as to mobility.

As per claim 2, claim 1 is incorporated and Vines further discloses:

- **finding one or more internal users with technical information relevant to equipment, plant or process,** at least by (col. 6 lines 4-6) “crew assigned to do the work”.

As per claim 3, claim 2 is incorporated and Vines further discloses:

- **assigning the new event or alarm for said equipment, plant or process to an internal user**, at least by (col. 6 lines 4-6) “crew assigned to do the work”.

As per claim 8, claim 1 is incorporated and Vines further discloses:

- **configuring a technical information link of component of a said equipment, plant or process with an identity of a user with access to relevant technical information**, at least by (col. 6 lines 1-6).

Claim 13 refers to a computer program product for retrieving and/or accessing information about an equipment, pant or process comprising a computer readable medium and computer code means corresponding to method claim 1, and is rejected under the same reason set forth in connection to rejections of claim 1. Where **Vines** further discloses a computer program product on computer readable medium at least by (claim 10).

Claims 15, 16, 17 refers to a software architecture recorded on a computer readable medium for retrieving and accessing information about an equipment, pant or process comprising a plurality of devices and one or more control system for process monitoring and control corresponding to the method claims 1, 2, 2 respectively, and are rejected under the same reason set forth in connection to rejections of claims 1, 2, 2 respectively above. Where **Vines** further discloses a computer program product on computer readable medium at least by (claim 10).

Claims 19, 20 are control system claims corresponding to the method claims 1, 2, respectively, and are rejected under the same reason set forth in connection to rejections of claims 1, 2 respectively above. Where **Vines** discloses a system at least by Fig. 1.

As per claim 21, claim 1 is incorporated and Vines further discloses:

- **wherein the maintenance information comprises at least one of service history or service documentation**, at least by (col. 5 lines 51-54) " track the history of work that has been performed on a specific piece of equipment by viewing the equipment history screen shown in FIG. 8"

As per claim 22, claim 1 is incorporated and Vines further discloses:

- wherein the information further comprises system data, user data, object data, technical information, specification, supplier information; a user knowledgeable about the selected equipment, plant, or process; a user responsible the selected equipment, plant, or process; users trained about the selected equipment, plant, or process; technical drawings of the selected equipment, plant, or process; contact information regarding users of the selected equipment, plant, or process; or safety information regarding the selected equipment, plant, or process, at least by (col. 5 lines 49-60), (col. 6 lines 7-15), (col. 5 lines 16-29).

As per claim 22, claim 1 is incorporated and Vines fails to disclose:

- **wherein said portable computing device is carried or worn by user.**

However, **Ying** teaches the above limitations at least by (paragraph [0055]) "The portable electronic diagnostic equipment 730 is preferably of sufficiently small size that it may be conveniently carried around by an operator."

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Ying** into the teaching of **Vines** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of performing at least all of the test and diagnosis operations that could be performed by connecting a test computer to the control network, but without being restricted as to mobility.

10. **Claims 4-7, 9-12, 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vines and Ying** further in view of **Tonack (US 7120830 B2)**

As per Claim 4, Claim 2 is incorporated and further neither Vines nor Ying discloses:

- **retrieving an address for an external user or expert and presenting the address to the internal user.**

However, **Tonack** teaches the above limitations at least by (col. 7 lines 4-26) teaching a maintenance coordination software, where maintenance calls are placed and maintenance technicians are made aware of the maintenance calls in a number of ways; through a terminal listing, email or pager calls, and possible email server can send out notifications to particular locations so that specific technicians related to the locations are notified. Also (col. 10 lines 43-44) “wherein the remote computer is further configured to relay the content of the alert to a maintenance technician”

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Ying** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 5, Claim 4 is incorporated and further neither Vines nor Ying discloses:

- **establishing contact between the external user or expert and the internal user.**

However, **Tonack** teaches the above limitations at least by (col. 7 lines 4-26) teaching a maintenance coordination software, where maintenance calls are placed and maintenance

technicians are made aware of the maintenance calls in a number of ways; through a terminal listing, email or pager calls, and possible email server can send out notifications to particular locations so that specific technicians related to the locations are notified. Also (col. 10 lines 43-44) “wherein the remote computer is further configured to relay the content of the alert to a maintenance technician”

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Ying** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 6, Claim 4 is incorporated and further neither Vines nor Ying discloses:

- establishing a shared display or shared computer application contact between the external user or expert and the internal user**

However, **Tonack** teaches the above limitations at least by (col. 9 lines 21 – 35) “maintenance coordination system” where the system is used by operators, technicians and other users for making repair calls, check equipment history process, enter production equipment status, trend analysis process, etc.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Ying** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects

faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 7, Claim 1 is incorporated and further neither Vines nor Ying discloses:

- **configuring a selected technical characteristic of the selected said equipment, plant or process with an indicator of a high, medium or low priority for returning the selected said equipment, plant or process to a normal state.**

However, **Tonack** teaches the above limitations at least by (col. 6 lines 1-18) “indicate the operable condition of the machine....Select Problem Code....Operator Notes” where each of these data fields provides the condition of the device providing information which can be used to prioritize the importance of the repair to the failed device. Furthermore (col. 6 lines 49-53) “maintenance and repair technicians can better prioritize their response to service calls if they are experiencing multiple simultaneous failures.”

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Ying** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 9, Claim 8 is incorporated and further neither Vines nor Ying discloses:

- **configuring said equipment, plant or process with an identity of a user with dependent on information recorded in the user profile.**

However, **Tonack** teaches the above limitations at least by (col. 7 lines 10 – 14) “request may include an instruction to list only maintenance calls in a particular location or relation to a particular type of production equipment. Thus, maintenance technicians may focus their attention on production equipment only within their area of responsibility.”

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Ying** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 10, Claim 8 is incorporated and further neither Vines nor Ying discloses:

- **configuring said equipment, plant or process with an identity of a user with dependent on information recorded in the user profile classified by any from the list of: responsibility, training, certified qualification, work experience.**

However, **Tonack** teaches the above limitations at least by (col. 7 lines 10 – 14) “request may include an instruction to list only maintenance calls in a particular location or relation to a particular type of production equipment. Thus, maintenance technicians may focus their attention on production equipment only within their area of responsibility.”

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Ying** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects

faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 11, Claim 1 is incorporated and further neither Vines nor Ying discloses:

- **attaching a user observation to the retrieved information associated with said equipment, plant or process as any form the list of: a text message, a video clip, a photograph, sketch, sound recording.**

However, **Tonack** teaches the above limitations at least by (col. 8 lines 29 - 51) disclosing information entered by the technician such as information related to the repair efforts.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Ying** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 12, Claim 1 is incorporated and further neither Vines nor Ying discloses:

- **carrying out a repair, re-configure, re-programming or replacement of a faulty part of said equipment, plant or process based at least in part on technical information associated with said equipment, plant or process retrieved and/or presented by means of the software entity.**

However, **Tonack** teaches the above limitations at least by (col. 8 lines 29 - 51) “During the repair effort or upon its completion...” the technician has the ability to enter information related to the repair efforts.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Ying** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

Claim 18 refer to a software architecture recorded on a computer readable medium for retrieving and accessing information about an equipment, pant or process comprising a plurality of devices and one or more control system for process monitoring and control corresponding to the method claim 4 and is rejected under the same reason set forth in connection to rejections of claim 4 above. Where **Vines** further discloses a computer program product on computer readable medium at least by (claim 10).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS TRUONG whose telephone number is (571)270-3157. The examiner can normally be reached on MON - FRI: 7:30 - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mahmoudi Tony can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tony Mahmudi/
Supervisory Patent Examiner, Art Unit
2169

/Dennis Truong/
Examiner, Art Unit 2169